

WHAT IS CLAIMED IS:

Sub A 1. A method of making a feedstock for injection molding, comprising the steps of:

a) mixing at a temperature of at least 100° C polymeric materials having a thermal conductivity in the range of 0.001 to 0.01 cal/cm-sec-° C wherein the polymeric materials are selected from the group consisting of polyethylene, polystyrene, polyester, and polycarbonate or combinations thereof, and one or more materials selected from the group consisting of ceramics, ceramic composites, metals and metal alloys in a blended relationship to form a viscous phase mixture, the materials in the viscous phase mixture being selected so that when in a solid phase it has a density greater than 4 grams/cc and a thermal conductivity greater than 0.101 cal/cm-sec-° C and;

b) cooling the blended viscous phase mixture to form the feedstock.

2. The method of claim 1 further comprising the step of processing the feedstock by shredding the feedstock and/or forming pellets from the feedstock which are capable of being placed in an injection molding machine and injection molded to form a solid enclosure body.

3. The method of claim 2 wherein the processing of the feedstock includes extruding the feedstock and cutting the extruded feedstock into the pellets.

4. The method of claim 1 wherein the polymeric material is polystyrene and the one or more materials are zirconia and gold.

5. The method of claim 1 wherein the polymeric material is polystyrene and the one or more materials are titanium carbide and aluminum.

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6. The method of claim 1 wherein the polymeric material is polystyrene and the one or more materials are silicon carbide and silver.

7. The method of claim 1 wherein the feedstock a modulus of elasticity greater than 32,000 psi and a fracture stress greater than 3,500 psi.

8. A method of making a feedstock for injection molding, comprising the steps of:

a) mixing at a temperature of at least 100° C a mixture of a polymeric material and one or more materials including, ceramics, ceramic composites, metals and metal alloys in blended relationship with the polymeric material so that a molded article resulting from the blended mixture has a density greater than 4 grams/cc and a thermal conductivity greater than 0.101 cal/cm-sec-° C and;

b) cooling the blended mixture to form the feedstock.

9. The method of claim 8 further including the step of processing the feedstock by shredding the feedstock and/or forming pellets from the feedstock which are capable of being placed in an injection molding machine and injection molded to form a solid enclosure body.

10. The method of claim 9 wherein the processing of the feedstock includes extruding the feedstock and cutting the extruded feedstock into the pellets.

11. The method of claim 8 wherein the polymeric material is polystyrene and the one or more materials are zirconia and gold.

12. The method of claim 8 wherein the polymeric material is polystyrene and the one or more materials are titanium carbide and aluminum.

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13. The method of claim 8 wherein the polymeric material is polystyrene and the one or more materials are silicon carbide and silver.

14. The method of claim 1 wherein the one or more materials are selected from the group consisting of Al, Ti, Mg, Al-Ti-V, or alloys or mixtures thereof.

15. The method of claim 1 wherein the one or more materials are selected from the group consisting of Ni, Cr, stainless steel, or mixtures thereof.

16. The method of claim 1 wherein one or more materials are selected from the group consisting of: ceramics, thermally and electrically insulating oxides, thermally conductive carbides, or mixtures thereof.

17. The method of claim 1 wherein the ceramic composites are thermally and electrically insulating oxides, including alumina, zirconia, magnesia, silica or mixtures thereof.

18. The method of claim 1 wherein the ceramic composites are thermally conductive carbides, including SiC, TiC, B₄C, WC, or mixture thereof.

19. The method of claim 1 wherein the one or more materials are selected from the group consisting of oxide ceramics which exhibit a wide variety of colors which include oxides of transition elements V, Cr, Mn, Fe, Co, Ni, or mixtures thereof.

20. The method of claim 1 wherein one or more materials are selected from the group consisting of oxide ceramics which exhibit a wide variety of colors which include oxides of rare earth elements La, Ce, Pr, Nd, Gd, or mixtures thereof.

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21. The method of claim 1 wherein one or more materials are selected from the group consisting of nitride ceramics which exhibit a wide variety of colors which include TiN, silicon nitride, BN, zirconium nitride, or mixtures thereof.

22. A feedstock made by the method claimed in claim 1.

23. A feedstock made by the method claimed in claim 2.

24. A feedstock made by the method claimed in claim 3.

25. A feedstock made by the method claimed in claim 4.

26. A feedstock made by the method claimed in claim 5.

27. A feedstock made by the method claimed in claim 6.

28. A feedstock made by the method claimed in claim 7.

29. A feedstock made by the method claimed in claim 8.

30. A feedstock made by the method claimed in claim 9.

31. A feedstock made by the method claimed in claim 10.

32. A feedstock made by the method claimed in claim 11.

33. A feedstock made by the method claimed in claim 12.

34. A feedstock made by the method claimed in claim 13.

35. A feedstock made by the method claimed in claim 14.

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36. A feedstock made by the method claimed in claim 15.
37. A feedstock made by the method claimed in claim 16.
38. A feedstock made by the method claimed in claim 17.
39. A feedstock made by the method claimed in claim 18.
40. A feedstock made by the method claimed in claim 19.
41. A feedstock made by the method claimed in claim 20.
42. A feedstock made by the method claimed in claim 21.

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